NOAA Backgrounder

National Weather Service

Who We Are

The National Weather Service is the primary source of weather data, forecasts and warnings for the United States. Television weathercasters and private meteorology companies prepare their forecasts using this information. The NWS is the sole United States official voice for issuing warnings during life-threatening weather situations. The weather service has about 4,800 employees and annual operating budget of approximately $656 million.

A WORD ABOUT NOAA. . .

The National Oceanic and Atmospheric Administration (NOAA) conducts research and gathers data about the global oceans, atmosphere, space, and sun, and applies this knowledge to science and service that touch the lives of all Americans.

NOAA warns of dangerous weather, charts our seas and skies, guides our use and protection of ocean and coastal resources, and conducts research to improve our understanding and stewardship of the environment which sustains us all.

A Commerce Department agency, NOAA provides these services through five major organizations: the National Weather Service, the National Ocean Service, the National Marine Fisheries Service, the National Environmental Satellite, Data and Information Service, and Office of Oceanic and Atmospheric Research; and numerous special program units. In addition, NOAA research and operational activities are supported by the Nation's seventh uniformed service, the NOAA Corps, a commissioned officer corps of men and women who operate NOAA ships and aircraft, and serve in scientific and administrative posts.

For further information: NOAA Office of Public Affairs, 14th Street and Constitution Avenue NW, Room 6013, Washington, D.C. 20230. Phone: (202) 482-6090.

What We Do

The National Weather Service provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, to protect life and property and enhance the national economy. The National Weather Service has a national infrastructure in place to gather and process data from the land, sea and air.

This includes data from familiar technologies such as weather radars and satellites and also less-familiar technologies such as data buoys for marine observations and surface observing systems for data that help the aviation industry. The National Weather Service's highly trained and skilled workforce uses sophisticated computer models, and high-speed communications systems to generate data, outlooks, forecasts and warnings.

Trained community volunteers enhance weather service operations. Cooperative observers collect weather data that becomes part of the nation's climate records. Storm spotters provide the National Weather Service with visual confirmation of severe weather events.

The National Weather Service is completing a $4.5 billion modernization program. When the program is complete, the agency will be a leaner, more efficient operation, with 121 field offices, 13 River Forecast Centers, and nine national centers. The modernized, streamlined weather service is good government and supports NOAA's commitment to creating a government that works better and costs less.

over, please

continued from previous page

Ongoing research and development efforts yield breakthroughs in all areas of weather, hydrologic and climate forecasting. Advances in climate forecast modeling, for example, allowed National Weather Service scientists to predict the onset of the 1997-98 El Niño event as early as late 1996.

The National Weather Service maintains the largest meteorological telecommunications switching center in the world, sending and receiving around 400,000 weather bulletins each day through a gateway in Silver Spring, Md. This data originates from weather offices around the country.

Weather warnings don't mean anything if they aren't received by those in harm's way. The National Weather Service broadcasts public life-saving information during severe weather events and other hazardous situations on the NOAA Weather Radio network. The newest models of NOAA Weather Radios can be programmed to sound an alert for individual counties. This feature has been known to wake people with warnings when they are asleep. In addition, the National Weather Service relies on its partners in emergency management and the media to help get out severe warnings and critical forecasts keeping communities safe.

The National Weather Service uses the Internet to reach a growing number of the online population. Information includes official forecasts and warnings as well as outlooks and summaries on climate topics such as El Niño. Most weather service Internet sites are linked to the National Weather Service home page at the following address: http://www.nws.noaa.gov

What Are the Benefits

Weather services cost each American about $4 a year—the same price as a hamburger and fries. This investment allows the National Weather Service to issue more than 734,000 forecasts (fire weather, public, aviation, marine) and 850,000 river and flood forecasts annually. Each year, the National Weather Service issues between 45,000 and 50,000 potentially life-saving severe weather warnings.

Every day, millions of weather-based economic decisions are made in agriculture, transportation, power, construction, and other sectors of the economy. Weather and flood conditions affect the entire economy in many direct and indirect ways. Better weather, hydrologic and climate forecasts and information bring new economic opportunities to almost every sector of the economy. The labor-intensive construction industry contributes more than $200 billion annually to the U.S. economy, and is directly dependent on accurate short- and long-range weather forecasts. National Weather Service forecasts are also critical to the commercial and private transportation sector, including airline shipping and trucking industries, nationally and internationally. Airlines, for example, rely on short-term forecasts to best position their aircraft and adjust flight routes. Long-term climate forecasts help city managers better manage the purchase of resources such as salt and sand for roads and sidewalks. Hyrdrologic forecasts help communities protect their property by preparing for floods.

The National Weather Service is making great strides to improve weather forecasts and warnings, with its vision of becoming America's "no surprise" weather service. The weather service has doubled the warning lead-time for tornados to approximately 12 minutes over the last five years. This extra time saves lives. Today's three-to-four day forecast is as accurate as the two day forecast was 15 years ago. The National Weather Service is working to make the 6-10 day forecast as accurate as the forecast for tomorrow.

Products issued around the clock by the National Weather Service affect the lives of every American. Important advances in the science of meteorology and hydrology, coupled with major new technological capabilities for observing and analyzing the atmosphere, will allow the National Weather Service to continue providing unprecedented weather services to the Nation.

For more information contact NOAA's NWS Public Affairs at (301) 713-0622.